

*Gall*.—Average diameter, 15 to 25 mm; length (on twig), about 20 to 30 mm. Galls luster-like, irregular in shape, sometimes, rounded, cocks-comb-like in appearance, springing from the small stems which shoot out laterally from the twig or branch, or terminal portion of latter. Consisting of irreglar massed clusters of many aborted, deformed, greatly thickened and fleshy leaflets springing from the side stems; surrounding the twig or branch but not attached thereto, dark scarlet-red in color on all surfaces exposed to the sun, the under side when not so exposed being annually greenish and always lighter than the upper or exposed portions. Inside portions green. External surface of the gall extremely irregular in outline, the fleshy leaflets arranged in irregular cocks-comb-like groups more or less pointed apically, the groups of leaflets longitudinally creased, appearing as though formed of many little columns set side by side and soldered together, much resembling groups of certain columnar crystals.

Described from 3 or 4 galls. The fleshy groups of leaflets contain irregular cavities within them. These, when opened the following spring, revealed only small pale brownish bodies attached to the walls inside. I am unable to suggest the order of insects to which the maker of this gall belongs. It may possibly be an acarid—perhaps a phytoid.

TARDY WING-EXPANSION IN CALLOSAMIA.—A few days ago I found, in Kensington, N. H., a small wild-cherry tree hung with cocoons of *Callosamia Promethea* to the number of seventy-five at least. On some twigs six or seven hung close together, all unusually large and light-colored. I cut off over thirty of them, and on June 12th I opened them, finding all good but one, in which the pupa had failed to cast the larva-skin, and so had died. One cocoon contained a ♀ on the point of emerging, the pupa-skin being broken in several places. I took out the half-emerged moth, removed

the ragged pupa-skin, and the moth crawled to the top of my cage, and hung there, undeveloped, all day and all night. This morning, June 13th at nine o'clock, its wings were still undeveloped, and I supposed it had been stunted by the unusual mode of emergence. At ten o'clock, however, the wings had expanded to nearly full size, and in half an hour more the moth was a fine specimen, fully developed, and unusually large!

I have never known the wings to expand so many hours after the moth had emerged.

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ENTOMOLOGICAL NOTES.—Insect parasitism is admirably and suggestively treated in Pres. Riley's address to the Entomological society of Washington, just printed in its proceedings. It is worthy of the closest attention as a broad outline of the subject; by the introduction of fuller illustrative details it could easily be expanded into a volume and be a very welcome addition to our literature.

In the last part of the transactions of the Entomological society of London, Dr. David Sharp shows that ants stridulate by means of fine transverse lines on the middle of the dorsum of the third abdominal segment where it is rubbed by the edge of the preceding segment; these organs are usually present in the Ponerides and Myrmicides, but appear to be absent from the Camponotides and Dolichoderides.

A. D. Hopkins prints in Bull. 31 of the West Virginia experiment station an interesting Catalogue of West Virginia Scotytidae and their enemies.

Wysam of Bruxelles announces a new issue of Hübner's Sammlung exotischer schmetterlinge and Zuträge, 664 quarto plates in all, the plates copied by heliogravure and colored by hand; the original and the latest nomenclature will be added. It will appear in 60 equal parts and be sold for 500 francs, payable by parts.